MQAUSX-GUI User Guide

🔆 MQAUSX-GUI : C	:\Capitalware\MQAUS	iX∖mqa	ius	cini			X
File View Tools	Help						
General	General						
Authentication	License						
LDAP	LicenseFile						
Group	Description						
Proxy	Logging						
UserId	LogMode	Norma	l	-			
IP Address	LogFile	C:\Cap	oital	ware (MQAUSX (mqau	sx.log		
Hostname	LogDiscMessage	No	•				
Host By Name	LogMessageOuote	•	•				
SSL DN	Detetel esDeilu	¥	_	De du el se File Court			
Max Client Channels	RotateLogDally	res	•	BackupLogPileCount	9		
AD Name	WriteToSystemLog	No	•	SystemLogMessage	Both		
	WriteToEventQueue	No	•	EventQueueName	SYSTEM.ADMIN.CH	IANNEL.EVENT	
	Memory Handling (Imn	nediatel	ly v	s Termination) ——			
	FreeAuxOnTerm	No	•				
	Excessive Client Conn	ections					
	UseECC	No	•	ECCInterval	Day 🔻		
				ECCWarnCount	5000		
			-				



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MQAUSX-GUI User Guide

Table of Contents

1 INTRODUCTION	1
1.1 Overview	1
2 INSTALLATION	2
2.1 PREREQUISITES	2
2.1 TREREGOISTES	2
2.2 Sol I WARE	2
2.4 Setting UP and Running the Application	2
2.4 1 For Windows Users.	2
2.4.2 For Linux and Max OS X (requires JRE/JDK):	
3 CREATING / UPDATING INIFILES	4
3.1 New IniFile	4
3.2 Open an IniFile	5
3.3 Close an IniFile	
3.4 Save IniFile	
3.5 SAVE AS INIFILE	8
4 TABS	9
4.1 General Tab	9
4.1.1 General	
4.1.2 Logging	
4.2 Authentication Tab	
4.2.1 Mode	
4.2.2 Authentication Type	
4.2.3 Authentication Order	
4.2.4 Credential Cache	
4.2.5 Queue Manager Password	14
4.2.6 Incoming Client Credentials	
4.2.7 ServerName	
4.3 LDAP T _{AB}	
4.3.1 LDAP	
4.4 Group Tab	
4.4.1 Local OS or Group File Search	
4.4.2 LDAP Group Search	
4.5 Proxy Tab	20
4.5.1 Proxy File	
4.6 UserId Tab	21
4.6.1 General	
4.6.2 Allow UserID	
4.6.3 Reject UserID	
4.6.4 Managing UserID Filtering	
4.7 IP Address Tab	
4.7.1 Allow IP	
4.7.2 Reject IP	

4.7.3 Managing IP Address Filtering	25
4.8 Hostname Tab	27
4.8.1 Allow Hostname	
4.8.2 Reject Hostname	
4.8.3 Managing Hostname Filtering	
4.9 Host By Name Tab	
4.9.1 Allow HostByName	31
4.9.2 Reject HostByName	
4.9.3 Managing HostByName Filtering	
4.10 SSL DN TAB	
4.10.1 General	
4.10.2 Allow SSL DN	
4.10.3 Reject SSL DN	
4.10.4 Managing SSL DN Filtering	35
4.11 Max Client Channel Tab	
4.11.1 Set Maximum Number of Incoming Connections per Channel	
4.11.2 Managing MCC entries	
4.12 AD NAME TAB	
4.12.1 Allow AD Name	
4.12.2 Reject AD Name	
4.12.3 Managing AD Name Filtering	40
5 OTHER TOOLS	42
5 1 II C	40
5.1 HEX CONVERTER	
5.2 Hex Editor	
5.3 TAIL FILE	
5.4 IEXT EDITOR	
5.5 VISUAL DIFFERENCE	
5.6 XML EDITOR	49
6 MISCELLANEOUS	50
6.1 Language	50
6.2 Reset View	51
6.2.1 Windows Command Line	51
6.2.2 Linux and macOS Command Line	51
7 APPENDIX A – FREQUENTLY ASKED QUESTIONS (FAQ)	52
8 ADDENINIV D. MOALISY CHI LIDCHADE DDOCEDIIDES	53
6 AI I ENDIA D – MQAUSA-GUI UI GRADE I ROCEDURES	
8.1 Windows Upgrade	53
8.2 Linux or macOS Upgrade	53
9 APPENDIX C – SUPPORT	54
10 APPENDIX D – SUMMARY OF CHANGES	55
11 APPENDIX E – LICENSE AGREEMENT	58
12 APPENDIX F – NOTICES	60

1 Introduction

1.1 Overview

MQAUSX-GUI application allows the user to create or update MQAUSX IniFiles.

MQ Authenticate User Security Exit (MQAUSX) is a solution that allows a company to fully authenticate a user who is accessing a IBM MQ resource. It verifies the User's UserID and Password (and possibly Domain Name) against the server's native OS system, LDAP server, Microsoft's Active Directory, Quest Authentication Services (QAS), Centrify's DirectControl or an encrypted MQAUSX FBA file.

MQAUSX will operate with IBM MQ v7.1, v7.5, v8.0, v9.0, v9.1 and v9.2 in Windows, IBM i (OS/400), Unix and Linux environments. It works with Server Connection, Client Connection, Sender, Receiver, Server, Requester, Cluster-Sender and Cluster-Receiver channels of IBM MQ queue manager.

MQAUSX-GUI creates or updates IniFiles that are located on server-side security exit.

MQAUSX-GUI can run on any platform that supports Java v1.6 (or higher). This includes: Linux, Mac OS X and Windows Vista/7/8/8.1/10.

2 Installation

This chapter will describe the installation and configuration (optional) of MQAUSX-GUI. For Windows users, the installation of MQAUSX-GUI is very simple and straightforward. Other Operating Systems will need to unzip the downloaded software package.

2.1 Prerequisites

This section lists the required hardware and software components needed to run the MQAUSX-GUI application.

2.2 Software

The following third party software components must be installed in order to properly run MQAUSX-GUI:

> Java Runtime Environment (JRE) 1.6 (or higher) or Java 2 SDK, Standard Edition (J2SE) v1.6 (or higher)

2.3 Hardware / OS

MQAUSX-GUI is capable of running on the following hardware platforms that support Java v1.6 (or higher):

- > Linux
- Mac OS X
- Windows Vista, 7, 8, 8.1 & 10

2.4 Setting Up and Running the Application

The following section provides instructions on installing and running the MQAUSX-GUI application.

2.4.1 For Windows Users:

> Run the install program called: mqausxgui-setup-withjre.exe

 \succ The installer should follow the standard Windows install procedures and provide default values for the users.

> When the install program has installed MQAUSX-GUI, there will be a newly created folder under **Start** -> All **Programs** called **MQAUSX-GUI**.

> To run MQAUSX-GUI, select the MQAUSX-GUI icon from within the MQAUSX-GUI folder.

2.4.2 For Linux and Max OS X (requires JRE/JDK):

- > MQAUSX-GUI is provided as a zip file: mqausxgui.zip
- > To unzip the file, open a shell prompt and execute the following commands:

unzip mqausxgui.zip

> When the unzip command has finished, there should be a directory tree as follows:

Capitalware/MQAUSX-GUI

> Change directory by typing the following:

cd Capitalware/MQAUSX-GUI

> Before running MQAUSX-GUI for the first time, you need to add the execute attribute to the mqausxgui.sh shell scripts. Type the following:

chmod +x mqausxgui.sh

To run MQAUSX-GUI from the Capitalware/MQAUSX-GUI directory, then type the following:

./mqausxgui.sh

3 Creating / Updating IniFiles

This chapter will describe the how to create and/or update IniFiles.

3.1 New IniFile

This section will describe how to create a new MQAUSX IniFile. The IniFile can be for a local or remote MQAUSX implementation.

From the main menu of MQAUSX-GUI, select File then New File

þ	MQAUSX-GUI v	2.9.1.0
•	e View Tools	Help
	New File	Ctrl+N
C	Open File	Ctrl+O
	Close	
i.	Save	
	Save As	
	Recent Files	,
	Exit	

The following is the New IniFile panel:

New file name		x
Please Make st	provide a ne ure <mark>yo</mark> u inclu	w file name. Ide the file extension. i.e. test.ini
New file	e name:	mqausx.ini
Operat	ing System:	Windows 👻
Type:		64-bit 🔻
[[OK	Cancel

Fill in the following information:

- Input a file name including the extension of '.ini'
- Select the Operating System
- Choose between a 32-bit or 64-bit environment

Finally, click the **Ok** button to create and open the new MQAUSX IniFile.

3.2 Open an IniFile

This section will describe how to open a MQAUSX IniFile to be viewed or edited. The IniFile can be for a local or remote MQAUSX implementation.



From the main menu of MQAUSX-GUI, select File then Open File

The following is the **Open** dialog box:



Select the IniFile that you wish to view / edit and then press the **Open** button.

3.3 Close an IniFile

This section will describe how to close a MQAUSX IniFile.

From the mai	in menu of	MQAUSX-	GUI, select	File then	Close
--------------	------------	---------	-------------	-----------	-------

i	NQAUS	X-GUI : (C:\Cap	oitalware	e\MQAUSX\m	qausx.	ini						٢
File	View	Tools	Help		_								
	New F	ile											
	Open	File	C	trl+0									
	Close				I								
	Save		C	trl+S	e								
	Save A	4s			eFile								
	Recen	t Files		F	otion								
	Exit												
Use	erId			LogMo	ode	Norma	al	•					
IP /	Address			LogFil	e	C:\Cap	pital	ware\MQAUSX\mqau	sx.log				
Ho	stname			LogDi	scMessage	No	•						
Ho	st By Nai	me		LogMe	essageQuote	۰. I	•						
SSI	. DN		_	Rotat	eLogDaily	Yes	•	BackupLogFileCount	9				
Ma		lient Cha	nneis	Write	ToSystemion	No	•	Systemi onMessage	Both				
AD	Name			white	T-F			5ystemeognessage			-		
				write	ToEventQueue	NO	•	EventQueueivame	SYSTEM. ADMIN	I.CHANNEL.EVEN			
				Memor	y Handling (Imr	nediate	ly v	s Termination)					
				FreeA	uxOnTerm	No	•						
				Excess	ive Client Conn	ections							
				UseEC	c	No	•	ECCInterval	Day 🔻				
								ECCWarnCount	5000				

If the user has altered the IniFile then the user will be presented with the following dialog box:



Select Yes to save the changes otherwise select No.

The MQAUSX-GUI program will make a backup of the original file in the same directory called: *{inifilename}.backup*

3.4 Save IniFile

This section will describe how to save an open MQAUSX IniFile.

From the main menu	i of MQAUSX-GUI,	select File then Save
--------------------	------------------	-----------------------

÷1	M	QAUS	X-GUI :	C:\0	Capi	italwar	e\/	MQAUSX\n	nqai	usx.ir	ni						x
File		View	Tools	Н	elp												
	1	New F	ile				0)									
	1	Open	File														
	Ľ	Close					ŀ										
ы	1	Save			Cti	rl+S	Þ									_	
	l	Save /	4s				еF	File									
	Ľ	Recen	t Files			+	pt	tion	L								
		Exit					.,										
Use	erI	Id				LogM	lod	e	No	ormal		•					
IP /	Ad	ldress				LogFi	ile		C:	\Capi	ital	ware (MQAUSX (mqau	sx.log				
Hos	str	name				LogD	iscl	Message	No		•						
Hos	st	By Na	ne		-	LogM	les	sageQuote	1		•						
Ma		num C	lient Cha	anne	le	Rota	teL	.ogDaily	Ye	25	•	BackupLogFileCount	9				
AD	N	ame			-	Write	To	SystemLog	No		•	SystemLogMessage	Both	•			
						Write	To	EventOueue	e Nr		•	EventOueueName	SYSTEM.	DMIN. CHANNEL	EVENT	1	
						Memo	ry	Handling (Im	med	liately	y v:	s Termination) ——					
						Free/	Aux	xOnTerm	No)	•						
						Exces	siv	e Client Con	nect	ions							
						UseE	СС	:	No)	•	ECCInterval	Day	-			
												ECCWarnCount	5000				
	_						_		_		_						

The parameter information will be saved to the IniFile.

The MQAUSX-GUI program will make a backup of the original file in the same directory called: *{inifilename}.backup*

3.5 Save As IniFile

This section will describe how to save an open MQAUSX IniFile.

A U. 1	1QAU3A-GUI : C:\Ca	apitalware (mQA03A (ii	iqaustan			
File	View Tools He	lp				
	New File	Ctrl+N				
	Open File	Ctrl+O				
	Close					
	Save	Ctrl+S =				
_	Save As	eFile				
	Recent Files	▶ ption				
₿ ₽	Exit					
Use	rId	LogMode	Normal	•		
IP A	ddress	LogFile	C:\Capit	alware MQAUSX (mgau	isx.log	
Hos	tname	LogDiscMessage	No			
Hos	t By Name	LasManagouta				
SSL	DN	LogimessageQuote				
Max	imum Client Channels	RotateLogDaily	Yes	BackupLogFileCount	9	
AD I	Name	WriteToSystemLog	No	SystemLogMessage	Both 🔽	
		WriteToEventQueue	No	EventQueueName	SYSTEM.ADMIN.CHANNEL.EVENT	
		Memory Handling (Im	mediately	vs Termination)		
		FreeAuxOnTerm	No	·		
		TreeAuxontenii	140			
		Excessive Client Conr	nections -			
		UseECC	No	ECCInterval	Day 🔻	
				ECCWarnCount	5000	

From the main menu of MQAUSX-GUI, select File then Save As

Select / Input the IniFile name that you wish use then press the Save button.



4 Tabs

This chapter will describe the various parameters on each tab.

4.1 General Tab

This section will describe various parameters on the General tab of a MQAUSX IniFile.

The following is a General Tab with default values:

🐳 MQAUSX-GUI : C	:\Capitalware\MQAUS	X\mqa	us>	Lini	
File View Tools	Help				
General	General				
Authentication	License				
LDAP	LicenseFile				
Group	Description				
Proxy	Logging				
UserId	LogMode	Norma		•	
IP Address	LogFile	C:\Cap	ital	ware\MQAUSX\mqau	sx.log
Hostname	LogDiscMessage	No	Ŧ		
Host By Name	LogMessageOuote	•	•		
SSL DN					
Max Client Channels	RotateLogDaily	res	•	BackupLogFileCount	9
AD Name	WriteToSystemLog	No	•	SystemLogMessage	Both 🔻
	WriteToEventQueue	No	•	EventQueueName	SYSTEM. ADMIN. CHANNEL. EVENT
	Memory Handling (Imm	nediatel	y v	s Termination) ——	
	FreeAuxOnTerm	No	•		
	Excessive Client Conn	ections			
	UseECC	No	•	ECCInterval	Day -
				ECCWarnCount	5000
				Loonanooan	
		-			

The following are the IniFile parameters on the General Tab:

4.1.1 General

This section describes the general keywords and their values.

License key is provided by Capitalware Inc. and is the mechanism on to license MQAUSX to a particular queue manager. Your license will look something like: 0000-AAAA-BBBBBBBB (Note: This is a sample license only and will NOT work).

LicenseFile specifies the location of License file that contains all of the customer's license keys. The following are the default values for LicenseFile:

- For Windows: C:\Capitalware\MQAUSX\mqausx_licenses.ini
- For IBM MQ 32-bit on Unix and Linux: /var/mqm/exits/mqausx_licenses.ini
- For IBM MQ 64-bit on Unix and Linux: /var/mqm/exits64/mqausx_licenses.ini
- For IBM i: /QIBM/UserData/mqm/mqausx/mqausx_licenses.ini

Description parameter is optional and is not used by MQAUSX. It can be used to provide a brief description / purpose of the IniFile.

4.1.2 Logging

This section describes the keywords related to logging and their values.

LogMode specifies what type of logging the user wishes to have. LogMode supports 4 values: Quiet, Normal, Verbose and Debug. The default value is Normal.

- **LogFile** specifies the location of the log file. The default is as follows:
 - For Windows: C:\Capitalware\MQAUSX\mqausx.log
 - For IBM MQ 32-bit on Unix and Linux: /var/mqm/exits/mqausx.log
 - For IBM MQ 64-bit on Unix and Linux: /var/mqm/exits64/mqausx.log
 - For IBM I: /QIBM/UserData/mqm/mqausx/mqausx.log

Token Replacement for LogFile keyword:

- %QM% Substitutes the name of the queue manager
- %CHL% Substitutes the name of the channel
- %UID% Substitutes the UserID
- %PID% Substitutes the Process ID
- %TID% Substitutes the Thread ID

LogDiscMessage specifies whether or not MQAUSX write a disconnect message when the client application closes the channel. The default value is No.

LogMessageQuote specifies the type of quote (single or double) to be used on the log message. The default value is ' (single quote).

RotateLogDaily specifies whether or not MQAUSX when auto-rotate the log files. The default value is Yes.

BackupLogFileCount specifies the number of backup log files to be kept / retained. The default value is 9.

WriteToSystemLog specifies for each connection attempt that a log entry be written to the system log.

- For Windows this would be the **Event Log**
- For Unix and Linux this would be the **syslog**.

SystemLogMessage specifies what messages will be written to the system log. SystemLogMessage supports 3 values: "Both", "Accepted Only", and "Rejected Only" messages. The default value is Both.

WriteToEventQueue specifies for each failed connection attempt that a log entry be written to the specified event queue.

EventQueueName specifies the name of the queue that the event message will be written to. The default is as follows: 'SYSTEM.ADMIN.CHANNEL.EVENT'.

FreeAuxOnTerm specifies whether the auxiliary memory is to be freed immediately or on termination. The default value is 'N'.

UseECC enables excessive client connections feature. The default value is 'N'.

ECCIntercal specifies a time internal to monitor the incoming number of connections. Valid values are D/H/M (Day, Hour and Minute). The default value is 'D'.

ECCWarnCount specifies a count which, when exceeded, will cause an alert to be generated. The default value is 5000.

4.2 Authentication Tab

This section will describe various parameters on the Authentication tab of a MQAUSX IniFile.

ile View Tools	Help					
General	Mode					
Authentication	NoAuth	No	•			
LDAP	Authentication Type					
Group	UseFBA	Yes	-	FBAFile	C:\Capitalware\MQAUSX\userlist.auth	
Proxy	UseLDAP	Yes	•			
UserId	Line CD C	Ne				
IP Address	USECDC	NO	•			
Hostname	UseQAS	No	•			
Host By Name	UsePAM	Yes	•	PAMService	common-auth	
SSL DN	Authentication Order					
Max Client Channels	UseAuthOrder	No	•	AuthOrder		
AD Name			1			
	Credential Cache —	¥	_	Carbalifa		
	UseCredentialCache	res	•	CacheLife	s Cachesize 100	
	Queue Manager Pass	word -				
	UseQMgrPwd	Yes	•	QMgrPwd	eCVjAc9F7gj6RDMSzOSIW4wj81T89pi6MsaZXN/MkTGDYA	
	Incoming Client Crede	ntials				
	AllowPlainTextCreden	tials		Yes 🔻		
	Server Name for Activ	e Dire	ctory	y Authenticatio	n (Windows only)	
	UseServerName	No	•	ServerName		
	AllowUserAlterServe	Name		No 🔻		

The following is an Authentication Tab with default values:

The following are the IniFile parameters on the Authentication Tab:

4.2.1 Mode

This section describes the keywords and their values.

NoAuth allows the MQ Administrator to disable authentication in the server-side security exit. *Be very careful when disabling authentication because the connecting user will not need a client-side security exit to make a valid connection to the channel.* This is controlled by the IniFile's property keyword 'NoAuth'. Setting 'NoAuth' to 'Y' (Yes) will disable server-side authentication.

4.2.2 Authentication Type

This section describes the necessary steps to enable UserId and Password against a target system.

> UseFBA allows the UserId and Password to be verified against a MQAUSX file

FBAFile specifies the file name and location of the encrypted FBA file to do the UserId and Password verification i.e. FBAFile=c:\fba.enc

UseLDAP allows the UserId and Password to be verified against a centralized LDAP server.

UseCDC allows the company or MQ Admin to enable authentication against Centrify's DirectConttrol

UseQAS allows the company or MQ Admin to enable authentication against Quest's Authentication Services.

4.2.3 Authentication Order

This section describes the necessary steps to enable UserId and Password against multiple authentication sources and the order in which these sources will be tested. Currently, MQAUSX supports 3 authentication sources: ldap, files and mqausx.

UseAuthOrder allows the company or MQ Admin to select the order in which the authentication to security services will occur

> AuthOrder specifies which authentication method to be executed and the order of execution. AuthOrder supports the following 5 values:

- *Idap* means the authentication will be against a LDAP server
- *files* means the authentication will be against the local OS
- **cdc** means the authentication will be against Centrify's DirectConttrol
- qas means the authentication will be against Quest Authentication Services
- **pam** means the authentication will be against Pluggable Authentication Modules (PAM)
- *mqausx* means the authentication will be against MQAUSX formatted file (i.e. FBA).

Note: If more than one authentication method is specified for AuthOrder parameter then the authentication order will be from left to right.

4.2.4 Credential Cache

This section describes the necessary entries to enable credential cache within MQAUSX. MQAUSX will cache the user credentials (in an encrypted format) for 'x' minutes (default is 5 minutes) in shared memory.

UseCredentialCache allows the MQAdmin enable credential caching in MQAUSX

UseCredentialCache supports 2 values [Y / N]. The default value is N.

CacheLife specifies the "time to live" for the credentials in the cache. The default value is 5 minutes.

CacheSize specifies the size of the cache. The default value is 100 entries.

4.2.5 Queue Manager Password

This section describes the necessary steps to enable a password for a queue manager.

UseQMgrPwd allows the MQAdmin to assign a password to a queue manager. UseQMgrPwd supports 2 values [Y / N]. The default value is N.

QMgrPwd specifies the encrypted password the MQAdmin is assigning to a queue manager. See Appendix D for details on creating the encrypted password.

4.2.6 Incoming Client Credentials

This section describes the necessary steps to enable reception of UserId and Password in plain text.

> AllowPlainTextCredentials allows the MQAUSX server-side component to accept UserId and Password in plain text (i.e. no client-side security exit)

4.2.7 ServerName

This section describes the keywords related to ServerName and their values.

UseServerName allows MQ Admin to designate a server name to this entity. UseServerName supports 2 values [Yes / No]. The default value is No.

ServerName specifies a default server name for this entity. This value will be transmitted to the end-user. For a Windows Server, you may specify a domain name. The default is the server's hostname.

> AllowUserAlterServerName allows MQAUSX server-side component to accept user specified ServerName. AllowUserAlterServerName supports 2 values [Yes / No]. The default value is No.

4.3 LDAP Tab

This section will describe various parameters on the LDAP tab of a MQAUSX IniFile.

The following is the LDAP Tab with sample values:

🐳 MQAUSX-GUI : C	A MQAUSX-GUI : C:\Capitalware\MQAUSX\mqausx.ini						
File View Tools	Help						
General	LDAP						
Authentication	LDAPHost	ldap.o	capit	talware.biz			
LDAP	LDAPPort	389;5	555		LDAPTimeOut 5		
Group	UseLDAPLoadBalance	Yes	•				
Proxy	LDAPBaseDN	CN=U	Jser	s,DC=capitalware,DC=biz			
UserId	UseLDAPBindDN	No	-	LDAPBindDN			
IP Address				LDAPBindPwd			
Hostname	UseLDAPAuthCompare	No	-				
Host By Name	obccord rearing are						
SSL DN	LDAP SSL						
Max Client Channels	UseLDAPSSL	No	•	UseLDAPSSLCert	No SSLCertFileType DER		
AD Name				SSLCertFileName			
				SSLCertPwd			
	LDAP LoginDN Prefix						
	UseLoginDNPrefix	No	•	LoginDNPrefix			
	LDAP Ambiguous Name R	esolutio	on (ANR)			
	UseANRforLDAP	No	-	UseANRPrefix	No ANRPrefix		
				Lico ANR Rootfy			
				USEANNEOSUIX			
				ExtractUserIDFromANR	No 🔻		
				UseANRDelimiter	No ANRDelimiter		
	LDAP UserID Search —						
	UseLDAPUserIDSearch	No	•	LDAPUserIDSearchScope	LDAP_SCOPE_ONELEVEL		
	LDAPUserIDSearchBase						
	LDAPUserIDSearchFilter						

The following are the IniFile parameters on the LDAP Tab:

4.3.1 LDAP

This section describes the necessary steps to enable 'LDAP Based Authentication'. By default, the server-side security exit will do UserId and Password against the native OS (Operating System). The company or MQ Administrator can choose to have authentication against a centralized LDAP server.

LDAPHost specifies the hostname or IP address of the LDAP server.

LDAPPort specifies the port number of the LDAP server (default value is 389).

LDAPTimeOut specifies, in seconds, how long to wait before timing out

UseLDAPLoadBalance specifies that load balancing of LDAP servers is to be used. The LDAP server selection is based on a random number.

LDAPBaseDN specifies the base DN / LDAP schema to be used when accessing the LDAP server. This keyword's value is not used when 'UseANRforLDAP' is set to Yes.

UseLDAPBindDN allows for a particular LDAP UserId and Password to be specified to connect to the remote LDAP server which the authentication will take place with.

LDAPBindDN specifies the bind DN UserID.

LDAPBindPwd specifies the bind DN Password

UseLDAPAuthCompare specifies whether to use ldap_compare_s vs ldap_simple_bind_s LDAP API call

LDAP LoginDN Prefix

UseLoginDNPrefix allows the **LoginDN** to be built with a different prefix rather than CN. This keyword's value is not used when 'UseANRforLDAP' is set to Yes.

LoginDNPrefix a value (i.e. UID) to be used as a prefix to the LoginDN. This keyword's value is not used when 'UseANRforLDAP' is set to Yes.

LDAP SSL

- **UseLDAPSSL** specifies that the connection to the LDAP server will be done via SSL.
- **UseLDAPSSLCert** specifies that a SSL certificate will verify the SSL connection.
- **SSLCertFileName** specifies the path and file name of the SSL certificate.
- **SSLCertPwd** specifies the Password for the SSL certificate (Netscape/Mozilla style)
- **SSLCertFileType** specifies the type of SSL certificate: DER or B64

LDAP Ambiguous Name Resolution (ANR)

- **UseANRforLDAP** allows the **LoginDN** to be replaced with an ANR value.
- **UseANRPrefix** tells MQAUSX to prefix a given string to the user's inputted UserId.
- > **ANRPrefix** specifies the string to be prefixed to the user's inputted UserId.

UseANRPostfix tells MQAUSX to postfix (append) a given string to the user's inputted UserId.

> ANRPostfix specifies the string to be postfixed (appended) to the user's inputted UserId.

ExtractUserIDFromANR tells MQAUSX to strip off the UserId at the '@' symbol and set the connection with this UserId.

UseANRDelimiter tells MQAUSX to strip off the UserId at a specific symbol rather than the '@' sign.

ANRDelimiter tells MQAUSX what symbol to be used when stripping the UserId from the ANR value.

LDAP UserID Search

- UseLDAPUserIDSearch specifies that LDAP UserID Search be used
- LDAPUserIDSearchBase specifies a search base for the LDAP UserID Search
- AAAA LDAPUserIDSearchFilter specifies a search filter for the LDAP UserID Search
- LDAPUserIDSearchScope specifies a search scope for the LDAP UserID Search

4.4 Group Tab

This section will describe various parameters on the Group tab of a MQAUSX IniFile.

The following is the Group Tab with default values:

MQAUSX-GUI : C	:\Capitalware\MQAUSX\mqau	sx.ini	_ _ ×
File View Tools	Help		
General	Group Authorization		
Authentication	UseGroups	Yes 🔻	
LDAP	Groups	grpA;grpF;grpM	Update
Group	UseGroupFile	Yes 🔻	
Proxy	GroupFile	C:\Capitalware\MOAUSX\groups.ini	
UserId	I DAD Group Grouph Authorizati		
IP Address	LDAP Group Search Authorizat		-
Hostname	UseLDAPGroupSearch	VO CDAPGroupsearchscope LDAP_SCOPE_ONELEVEL	•
Host By Name	UseLDAPGroupSearchBindDN	No 🔻	
SSL DN	LDAPGroupSearchBase		
Max Client Channels	LDAPGroupSearchFilter		
AD Name			

The following are the IniFile parameters on the Group Tab:

4.4.1 Local OS or Group File Search

This section describes the necessary entries to enable the feature that allows or restricts the incoming UserID against an OS group or a group file. This feature uses the following four keywords:

- **UseGroup** to allow or restrict an incoming UserID by a local OS group or a group file.
- **Groups** specifies the list of authorized groups.
- **UseGroupFile** specifies if a group file should be used instead of local OS groups.
- **GroupFile** specifies the location of the group file.

4.4.2 LDAP Group Search

MQAUSX supports the use of LDAP Group Search to verify that a UserID exists in a group.

- **UseLDAPGroupSearch** specifies that LDAP Search be used for group verification
- **UseLDAPGroupSearchBase** specifies a search base for the LDAP Search
- UseLDAPGroupSearchFilter specifies a search filter for the LDAP Search
- **UseLDAPGroupSearchScope** specifies a search scope for the LDAP Search.

4.5 Proxy Tab

This section will describe various parameters on the Proxy tab of a MQAUSX IniFile.

The following is the Proxy Tab with sample values:

MQAUSX-GUI : C	\Capitalware\MQAUSX\mqausx.ini	×
File View Tools	Help	
General	Proxy	
Authentication	UseProxy Yes 🔻	
LDAP	ProxvFile C:\Capitalware\MOAUSX\proxv.fil Edit File	
Group		
Proxy	Proxy File Values:	
UserId		
IP Address	Add	
Hostname		
Host By Name		
SSL DN	Delete	
Max Client Channels		
AD Name	Save File	
	Cancel	

4.5.1 Proxy File

This section describes the necessary steps to enable the use of 'Proxy IDs'. Proxy ID allows an authorized User to use a different UserID for MQ interactions.

The following are the IniFile parameters on the Proxy Tab:

- **UseProxy** allows an authorized User to use a different UserID for MQ interactions.
- **ProxyFile** specifies the location of the file to do alternate UserID look-up.

4.6 Userld Tab

This section will describe various parameters on the UserId tab of a MQAUSX IniFile.

The following is the UserId Tab with sample values:

MQAUSX-GUI : C	:\Capitalware\MQA	USX\mqausx.ini		×
File View Tools	Help			
General	General			
Authentication	Allowmqm	No AllowBlankUserID No		
LDAP	UseMCAUser	No 🔻 UserIDFormatting Lowercase 💌		
Group	CheckFinalUserID	No 🔻		
Proxy		-		
UserId	Allow UserId Filteri	ng		
IP Address	UseAllowUserID	Yes 🔻		
Hostname		Allow UserId Filters:		
Host By Name		rubb*		
SSL DN		nint*	Add	
Max Client Channels			Edit	
AD Name			Delete	
			T Move Up	
			Hove Down	
	Deject LiserId Filte	ring		
	Reject IserID	Vec V		
	Rejectoscrib			
		Reject UserId Filters:		
		bambam pebbles	Add	
			Edit	
			Delete	
			▲ Move Up	

The following are the IniFile parameters on the UserId Tab:

4.6.1 General

This section describes the necessary steps to enable the use of the general options for the UserId tab.

> Allowmqm enables users to login with the mqm or MUSR_MQADMIN or QMQM system account. This is controlled by the IniFile's property keyword 'Allowmqm'. Setting 'Allowmqm' to Yes will activate this feature; otherwise, it will be blocked.

AllowBlankUserId enables connection to have a blank UserID. This parameter is only valid when 'NoAuth' is set to 'Yes'. This is controlled by the IniFile's property keyword 'AllowBlankUserID'. Setting 'AllowBlankUserID' to 'Yes' will allow connections to have a blank UserID.

> UseMCAUser allows the connection to use the UserID value specified in the channel's MCAUSER field.

➤ UserIDFormatting specifies how to handle/format the incoming UserID. Use it 'As Is' or 'Uppercase' it or 'Lowercase' it. The default is 'As Is'.

CheckFinalUserID specifies whether or not the final UserID will be checked against the UseAllowUserID, AllowUserID, UseRejectUserID, RejectUserID and Allowmqm keywords. CheckFinalUserID supports 2 values [Y / N]. The default is 'N'.

4.6.2 Allow UserID

This section describes the necessary steps to enable the use of filtering of the incoming UserId.

UseAllowUserID enables the feature to allow or to restrict the incoming UserID by using a regular expression pattern. This parameter is only valid when 'NoAuth' is set to 'Y'. The server-side security exit will look up the regular expression pattern from the 'AllowUserID' property keyword.

> AllowUserID Filters is a list of UserIds (with wildcards) that are allowed to connect to queue manager or particular channel.

4.6.3 Reject UserID

This section describes the necessary steps to explicitly reject an incoming UserId.

➤ UseRejectUserID enables the feature to reject an the incoming UserID by using a regular expression pattern. The server-side security exit will look up the regular expression pattern from the 'RejectUserID' property keyword.

RejectUserID Filters is a list of UserIds (with wildcards) that are explicitly rejected.

4.6.4 Managing UserID Filtering

This section describes the necessary steps to manage UserID filtering entries.

Input		×
?	Please provide an 'Allow' UserId filter flint*	
	OK Cancel	

Click the **Add** button to add an entry to the list.

Input the UserID including wildcards and then click the Ok button.

Input	X
?	Please provide an 'Allow' UserId filter. flint*
	OK Cancel

Click the Edit button to update an entry in the list.

Update the UserID including wildcards and then click the Ok button.

Click the **Delete** button to delete an entry in the list.



Click the Yes button to permanently remove the entry from the list.

4.7 IP Address Tab

This section will describe various parameters on the IP Address tab of a MQAUSX IniFile.

The following is the IP Address Tab with sample values:

🙀 MQAUSX-GUI : C	:\Capitalware\MQAUSX\mqausx.ini	_ _ X
File View Tools	Help	
General	Allow IP Address Filtering	
Authentication	UseAllowIP Yes 🔻	
LDAP	Allow IP Address Filters:	
Group	10.10.*.*	
Proxy	10.20.*.* Add	
UserId	Edit	
IP Address	Delete	
Hostname		
Host By Name	1 Move Up	
SSL DN	United America Move Down	
Max Client Channels		
AD Name		
	Reject IP Address Filtering	
	UseRejectIP Yes	
	Reject IP Address Filters:	
	192.168.10.*	
	192.168.20.*	
	Edit	
	Delete	
	1 Move Up	
	Move Down	

The following are the IniFile parameters on the IP Address Tab:

4.7.1 Allow IP

This section describes the necessary steps to enable the use of filtering of the incoming IP address.

➤ UseAllowIP to allow or restrict an incoming IP address by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowIP'. Setting 'UseAllowIP' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowIP' property keyword.

> **IP** Address Filters is a list of IP Addresses (with wildcards) that are allowed to connect to queue manager or particular channel.

4.7.2 Reject IP

This section describes the necessary steps to explicitly reject an incoming IP address.

➤ UseRejectIP to explicitly reject an incoming IP address by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseRejectIP'. Setting 'UseRejectIP' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'RejectIP' property keyword.

> **IP Reject Filters** is a list of IP Addresses (with wildcards) that are explicitly rejected.

4.7.3 Managing IP Address Filtering

This section describes the necessary steps to manage IP address filtering entries.

Click the Add button to add an entry to the list.

Input	
?	Please provide an 'Allow' IP address filter. 10.20.*.*
	OK Cancel

Input the IP Filter including wildcards and then click the **Ok** button.

Click the Edit button to update an entry in the list.



Update the IP Filter including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.



Click the **Yes** button to permanently remove the entry from the list.

4.8 Hostname Tab

This section will describe various parameters on the Hostname tab of a MQAUSX IniFile.

The following is the Hostname Tab with default values:

🚱 MQAUSX-GUI : C	:\Capitalware\MQAUS	SX\mqausx.ini		×
File View Tools	Help			
General	Allow Hostname Filter	ing		
Authentication	UseAllowHostname	Yes 🔻		
LDAP		Allow Hostname Filters:		
Group		abc01.acme.com		
Proxy		abc02.acme.com	Add	
UserId			Edit	
IP Address				
Hostname			Delete	
Host By Name			Move Up	
SSL DN			Maye Down	
Max Client Channels				
AD Name				
	Reject Hostname Filte	ring		
	UseRejectHostname	NO		
		Reject Hostname Filters:		
			Add	
			Edit	
			Delete	
			Move Up	
			Move Down	

The following are the IniFile parameters on the Hostname Tab:

4.8.1 Allow Hostname

This section describes the necessary steps to enable the use of filtering of the incoming Hostname.

➤ UseAllowHostname to allow or restrict an incoming Hostname by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowHostname'. Setting 'UseAllowHostname' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowHostname' property keyword.

Hostname Filters is a list of Hostnames (with wildcards) that are allowed to connect to queue manager or particular channel.

4.8.2 Reject Hostname

This section describes the necessary steps to explicitly reject an incoming Hostname.

➤ UseRejectHostname to explicitly reject an incoming Hostname by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseRejectHostname'. Setting 'UseRejectHostname' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'RejectHostname' property keyword.

Reject Hostname Filters is a list of Hostnames (with wildcards) that are explicitly rejected.

4.8.3 Managing Hostname Filtering

This section describes the necessary steps to manage Hostname filtering entries.

Click the Add button to add an entry to the list.



Input the Hostname Filter including wildcards and then click the Ok button.

Click the **Edit** button to update an entry in the list.



Update the Hostname Filter including wildcards and then click the Ok button.

MQAUSX-GUI User Guide

Click the **Delete** button to delete an entry in the list.



Click the **Yes** button to permanently remove the entry from the list.

4.9 Host By Name Tab

This section will describe various parameters on the Host By Name tab of a MQAUSX IniFile.

The following is the Host By Name Tab with default values:

🚱 MQAUSX-GUI : C	:\Capitalware\MQAUSX	\mqausx.ini	x
File View Tools	Help		
General	Allow Host By Name Filte	ering	
Authentication	UseAllowHostByName	Yes 💌	
LDAP		Allow Host By Name Filters:	
Group		abc01.acme.com	
Proxy		abc02.acme.com Add	
UserId		Edit	
IP Address			
Hostname		Delete	
Host By Name		Move Up	
SSL DN			
Max Client Channels			
AD Name			
	Reject Host By Name Hi	ering	
	UseRejectHostByName		
		Reject Host B yName Filters:	
		Add	
		Edit	
		Delete	
		↑ Move Up	
		Hove Down	

The following are the IniFile parameters on the HostByName Tab:

4.9.1 Allow HostByName

This section describes the necessary entries to enable the feature that allows or restricts the incoming IP against IP of Hostnames that MQAUSX will perform a gethostbyaddr() call against to compare the returned IP address against the incoming IP address.

UseAllowHostByName controls the use of AllowHostByName. Set to Y to activate feature.

b HostByName specifies the Hostnames that MQAUSX will perform a gethostbyaddr() call against to compare the returned IP address against the incoming IP address to allow the incoming connection.

4.9.2 Reject HostByName

This section describes the necessary entries to enable the feature that rejects the incoming IP against IP of Hostnames that MQAUSX will perform a gethostbyaddr() call against to compare the returned IP address against the incoming IP address.

UseRejectHostByName controls the use of RejectHostByName. Set to Y to activate feature.

Reject HostByName specifies the Hostnames that MQAUSX will perform a gethostbyaddr() call against to compare the returned IP address against the incoming IP address. rejected.

4.9.3 Managing HostByName Filtering

This section describes the necessary steps to manage HostByName filtering entries.

Click the Add button to add an entry to the list.



Input the HostByName Filter including wildcards and then click the **Ok** button.

Click the Edit button to update an entry in the list. X



Update the HostByName Filter including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.



Click the **Yes** button to permanently remove the entry from the list.

4.10 SSL DN Tab

This section will describe various parameters on the SSL DN tab of a MQAUSX IniFile.

The following is the SSL DN Tab with sample values:

🙀 MQAUSX-GUI : C	:\Capitalware\MQ/	AUSX\mqa	usx.ini						x
File View Tools	Help								
General	General								
Authentication	UseSSLCertUserI	D	No	•	AllowSSLSSCert	Yes	•		
LDAP	UseSSIUserIDEro	mDN	No	•	SSI DNAttrName	CN			
Group	0303003010110		140						
Proxy					SSLDNAttrStartPos	*	-		
UserId	Allow SSL DN Filter	rina ——			SSEDNAtirLengin				
IP Address	UseAllowSSLDN	Yes 🔻							
Hostname									
Host By Name		Allow SSL [DN Filter	s:					
SSL DN		O=IBM,DO	C=com	-04	1			Add	
Max Client Channels								Edit	
AD Name								Data	
								Delete	
								Move Up	
								Move Down	
	Reject SSL DN Filt	ering —							
	UseRejectSSLDN	No 🔻							
		Reject SSL	DN Filte	ers:					
								Add	
								Edit	
								Delete	
								Move Down	

The following are the IniFile parameters on the SSL DN Tab:

4.10.1 General

This section describes the necessary steps to enable the use of the general options for the SSL DN tab.

➤ UseSSLCertUserID allows the connection to use the UserID value specified in the channel's SSLCertUserID field.

- > AllowSSLSSCert allows or rejects a connection with a Self-Signed Certificate.
- **UseSSLSSLDNFromDN** specifies that the UserID is to be retrieved from a SSL DN entry.
- > SSLSSLDNAttrName specifies the SSL DN attribute field name
- > SSLDNAttrStartPos specifies the start position of the retrieval
- > SSLDNAttrLength specifies the length of the field to be extracted (* means all)

4.10.2 Allow SSL DN

This section describes the necessary steps to enable the use of filtering of the incoming SSL DN.

➤ UseAllowSSL DN enables the feature to allow or to restrict the incoming SSL DN by using a regular expression pattern. The server-side security exit will look up the regular expression pattern from the 'AllowSSL DN' property keyword.

> AllowSSL DN Filters is a list of SSL DNs (with wildcards) that are allowed to connect to queue manager or particular channel.

4.10.3 Reject SSL DN

This section describes the necessary steps to explicitly reject an incoming SSL DN.

➤ UseRejectSSL DN enables the feature to reject an the incoming SSL DN by using a regular expression pattern. The server-side security exit will look up the regular expression pattern from the 'RejectSSL DN' property keyword.

RejectSSL DN Filters is a list of SSL DNs (with wildcards) that are explicitly rejected.

4.10.4 Managing SSL DN Filtering

This section describes the necessary steps to manage SSL DN filtering entries.

Click the Add button to add an entry to the list.

Input	
?	Please provide an 'Allow' SSL DN filter. O=Capitalware,C=CA
	OK Cancel

Input the SSL DN including wildcards and then click the **Ok** button.

Click the	Edit button to update an entry in	n the list.
Input		
٢	Please provide an 'Allow' SSL DN filter. O=Capitalware,C=CA	
	OK Cancel	

Update the SSL DN including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.

Delete	
?	Delete O=Capitalware,C=CA SSL DN filter?
	Yes No

Click the **Yes** button to permanently remove the entry from the list.

4.11 Max Client Channel Tab

This section will describe various parameters on the Max Client Channel (MCC) tab of a MQAUSX IniFile.

The following is the Max Client Channel Tab with sample values:

MQAUSX-GUI : C:\C	apitalware\MQAUSX\mqausx.ini	×
File View Tools He	lp	
General	Max Client Channels	
Authentication	UseMCC Yes 🔻	
LDAP		
Group		
Proxy		
UserId	MCCRedoCount 5000 MCCRedoMinutes 720	
IP Address	MCCGetTimeOut 3	
Hostname	Channels	
Host By Name	HR.HEALTH.CHL = 40 HR.PAYROLL.CHL = 30	
SSL DN	SYSTEM.ADMIN.SVRCONN = 5	
Max Client Channels	SYSTEM.DEF.SVRCONN = 5 TEST.CHL = 10	
AD Name	Edit	
	Delete	

The following are the IniFile parameters on the Max Client Channel Tab:

4.11.1 Set Maximum Number of Incoming Connections per Channel

This section describes the necessary entries to set a maximum number of allowable connections per a given channel. This is controlled by the IniFile's property keyword 'UseMCC'. Setting 'UseMCC' to 'Y' (Yes) will cause the server-side security exit to look up channel's name as a property keyword in the IniFile.

For example, if 'UseMCC' is set to 'Y' and the incoming connection is on

'SYSTEM.ADMIN.SVRCONN', the server-side security exit will look up in the IniFile the keyword of 'SYSTEM.ADMIN.SVRCONN'. If the 'SYSTEM.ADMIN.SVRCONN' keyword is not found, then the server-side security exit will look up 'DefaultMCC' keyword in the IniFile.

> **DefaultMCC** is the default maximum number of connections allowed for the channel.

> MCCEventWarnLevel keyword provides a percent level of connected channels when a warning messages should be issued to the event queue. The default value for 'MCCEventWarnLevel' is 80 percent.

UseMCCRedo keyword specifies whether or not the server-side security exit should issue the PCF command. The default value for 'UseMCCRedo' is 'N'.

MCCRedoMinutes keyword states that the server-side security exit should issue PCF command if more than 'x' minutes have passed since the last PCF command was issued. The default value for 'MCCRedoMinutes' is 720 minutes.

MCCRedoCount keyword states that the server-side security exit should issue PCF command if more than 'x' connection attempts passed since the last PCF command was issued. The default value for 'MCCRedoCount' is 5000.

> MCCGetTimeOut keyword states that the server-side security exit should wait, after issues a PCF command, up to 'x' seconds for the response message from the command server. The default value for 'MCCGetTimeOut' is 3 seconds.

4.11.2 Managing MCC entries

This section describes the necessary steps to manage the max. client channel entries.

Click the **Add** button to add an entry to the list.

Please sp	pecify a new SVRCONN	Channel Name and max 🔀
?	SVRCONN Channel Name: Max Channel Limit:	TEST.CHL
	ОК	Cancel

Input the channel name and the maximum number of connection to be allowed at any given time for this channel and then click the **Ok** button.

Click the **Edit** button to update an entry in the list.

Please update the SVRCONN Channel Name and max limit. 🔀										
?	SVRCONN Channel Name: Max Channel Limit:	TEST.CHL								
	ОК	Cancel								

Update the channel name and / or the maximum number of connection to be allowed at any given time for this channel and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.



Click the Yes button to permanently remove the entry from the list.

4.12 AD Name Tab

This section will describe various parameters on the AD Name tab of a MQAUSX IniFile.

The following is the AD Name Tab with sample values:

🐳 MQAUSX-GUI : C:\Capitalware\MQAUSX\mqausx.ini										
File View Tools Help										
General	Allow Active Directory Name Filtering									
Authentication	UseAllowADName Yes 🔻									
LDAP	Allow Active Directory Name Filters:									
Group	adprod*									
Proxy										
UserId	Add									
IP Address	Edit									
Hostname	Delete									
Host By Name										
SSL DN	1 Move Up									
Max Client Channels	↓ Move Down									
AD Name										
	Deiset Astive Directory Name Eiltering									
	Reject Active Directory Name Filters:									
	adtest* qaad*									
	Add									
	Delete									
	Move Up									

The following are the IniFile parameters on the AD Name Tab:

4.12.1 Allow AD Name

This section describes the necessary steps to enable the use of filtering of the incoming AD Name.

➤ UseAllowADName to allow or restrict an incoming AD Name by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowADName '. Setting 'UseAllowADName ' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowADName ' property keyword.

> AD Name Filters is a list of AD Name s (with wildcards) that are allowed to connect to queue manager or particular channel.

4.12.2 Reject AD Name

This section describes the necessary steps to explicitly reject an incoming AD Name.

➤ UseRejectADName to explicitly reject an incoming AD Name by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowADName '. Setting 'UseAllowADName ' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowADName ' property keyword.

> AD Name Reject Filters is a list of AD Name (with wildcards) that are allowed to connect to queue manager or particular channel.

4.12.3 Managing AD Name Filtering

This section describes the necessary steps to manage AD Name filtering entries.

Click the Add button to add an entry to the list.

Input	
?	Please provide an 'Allow' AD Name filter. adprod*
	OK Cancel

Input the AD Name including wildcards and then click the Ok button.

Click the **Edit** button to update an entry in the list.

Input	
٩	Please provide an 'Allow' AD Name filter. adprod*
	OK Cancel

Update the AD Name including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.



Click the Yes button to permanently remove the entry from the list.

The MQCCI-GUI : C:\Capitalware\MQCCI\mqcci.ini										
File View	Tools Help									
General	Show Structures									
ShowCD	ShowCXP - Channel Exit Pa	rameter								
ShowCXP	CapabilityFlags	CurHdrCompression	CurMsgCompression	ExitData						
	ExitId	ExitNumber	ExitReason	ExitResponse2						
	ExitResponse	ExitSpace	FAPLevel	Feedback						
	HeaderLength	MaxSegmentLength	MCAUserSource	MsgRetryCount						
	MsgRetryInterval	MsgRetryReason	V PartnerName	RemoteProduct						
	RemoteVersion	SecurityParms	V SharingConversations	SSLCertUserid						
	SSLRemCertIssName	Version								

5 Other Tools

This chapter will describes how the other tools included with MQAUSX-GUI.

5.1 Hex Converter

This section will describe how to invoke and use the Hex Converter tool. Hex Converter tool can convert a hexadecimal number to its corresponding string representation and vice versa. i.e. 0x'3132333041424344' to '1230ABCD'.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select Tools, then Hex Converter.

This is the main panel of the Hex Converter.

Hex Converter v1.0.0	
ile <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp	
Input Value:	
5468697320697320612074657374206D657373616765	
Conversion Type: Convert Hex to Character Convert	
Output:	

- The user first selects the Conversion type: "Hex to Character" or "Character to Hex"
- Input the value hex or character value into the "Input Value" field
- Click the Convert button to convert the data

5.2 Hex Editor

This section will describe how to invoke and use the Hex Editor tool. The Hex Editor is a simple multipurpose hex editor. The Hex Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select **Tools**, then **Hex Editor**.

This is the main panel of the Hex Editor and it has 3 open files.

III E:\TestData\Text\message_0001.txt																		
<u>File Edit View Tools H</u> elp																		
	message_0001.txt X message.txt										0	one_	ness	age_	smal	ll.txt	×	
	Address	0	1	2	3	4	5	6	7	8	9	Α	в	с	D	Е	F	Text
	00000000	49	6E	20	4D	51	53	65	72	69	65	73	2C	20	69	6E	74	In MQSeries, int
	00000010	65	72	63	6F	6D	6D	75	6E	69	63	61	74	69	6F	6E	20	ercommunication
	00000020	6D	65	61	6E	73	20	73	65	6E	64	69	6E	67	20	6D	65	means sending me
	0000030	73	73	61	67	65	73	20	66	72	6F	6D	20	6F	6E	65	20	ssages from one
	00000040	71	75	65	75	65	20	6D	61	6E	61	67	65	72	20	74	6F	queue manager to
	00000050	20	61	6E	6F	74	68	65	72	2E	20	20	54	68	65	20	72	another. The r
	00000060	65	63	65	69	76	69	6E	67	20	71	75	65	75	65	20	6D	eceiving queue m
	00000070	61	6E	61	67	65	72	20	63	6F	75	6C	64	20	62	65	20	anager could be
	00000080	6F	6E	20	74	68	65	20	73	61	6D	65	20	6D	61	63	68	on the same mach
	00000090	69	6E	65	20	6F	72	20	61	6E	6F	74	68	65	72	3B	20	ine or another;
	000000A0	6E	65	61	72	62	79	20	6F	72	20	6F	6E	20	74	68	65	nearby or on the
	00000B0	20	6F	74	68	65	72	20	73	69	64	65	20	6F	66	20	74	other side of t
	00000C0	68	65	20	77	6F	72	6C	64	2E	20	20	49	74	20	63	6F	he world. It co
	000000D0	75	6C	64	20	62	65	20	72	75	6E	6E	69	6E	67	20	6F	uld be running o
	000000E0	6E	20	74	68	65	20	73	61	6D	65	20	70	6C	61	74	66	n the same platf
	00000F0	6F	72	6D	20	61	73	20	74	68	65	20	6C	6F	63	61	6C	orm as the local
	00000100	20	71	75	65	75	65	20	6D	61	6E	61	67	65	72	2C	20	queue manager,
	00000110	6F	72	20	63	6F	75	6C	64	20	62	65	20	6F	6E	20	61	or could be on a
	00000120	6E	79	20	6F	66	20	74	68	65	20	70	6C	61	74	66	6F	ny of the platfo
	00000130	72	6D	73	20	73	75	70	70	6F	72	74	65	64	20	62	79	rms supported by
	00000140	20	4D	51	53	65	72	69	65	73	ZE	20	20	54	68	69	73	MQSeries. This
	00000150	20	69	73	20	63	61	6C	6C	65	64	20	61	20	64	69	73	is called a dis
	00000160	/4	72	69	62	75	/4	65	64	20	65	6E	76	69	72	61	6E	tributed environ
	00000170	6D	65	6E	74	ZE	20	20	4D	51	53	65	72	69	65	/3	20	ment. MQSeries
	00000180	60	61 74	6E	64	60	20	73	20	20	61	20	60	75	0E	59	22	nanules communic
	00000140	60	62	75	01	OE	20	20	0E	20	01	20	04 72	69	/ 3 6E	/4	72	acton in a distr
	000001A0	69	02	20	74	75	62	20	20	0E	70	20	74	60	0E	72	20	nt such as this
	00000160	75	74	20	/ 3 6E	67	20	00	20	72	73	20	60	60	75	73	20	ucina Distribute
	00000100	6/	20	51	0E	65	20	44	20	10	61	72 65	61	67	65	74 6D	65	d Oueue Managemo
	00000150	65	74	20	28	44	51	40	20	-+0	01	54	68	65	20	60	65	nt (DOM) The lo
	000001E0	62	61	60	20	71	75	40	29	65	20	54 6D	61	65	61	67	65	cal queue manage
	00000200	72	20	60	73	20	73	6F	60	65	74	60	60	65	73	20	63	r is sometimes c
	0000200	12	20	09	<i>(</i>)	20	<i>(</i>)	01	00	05	74	09	00	05	13	20	05	T TS SUMELTINES C

- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

5.3 Tail File

This section will describe how to invoke and use the Tail File tool. The Tail File is a simple multipurpose file monitoring viewer. The Tail File supports monitoring of multiple files at the same time.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select Tools, then Tail File.

This is the main panel of the Tail File and it has 3 open files.

D:\Program Files (x86)\IBM\WebSphere MQ\errors\AMQERR01.LOG	_ D _X
Eile Edit View Iools Help	
mqausx.mqwt1.log X 🖬 AMQERR01.LOG X UFM.log X	- 5
15312 [SPLANATION: 15313 [SPLANATION: 15334 [An error occurred receiving data from 'articlescenter(1414)' over TCP/IP. The 15315 [connection to the remote host has unexpected]y terminated.	*
13310 The channel name is 'WY.TEST.EXIT'; in some cases it cannot be determined and 15317 [Sisteman as 'P???'. 15319 [ACTION: contexp addicated and addicated and addicated and addicated and addicated and addicated	
13321 mmgcrits.c : 4113 13322 (5/24/2016 13:21:15 - Process(9552.1) User (all manna) Program(mytestx.exe) 13324 Host teammachi Installation(Installation1) 13324 VMP(6.0.0.4)	
113335/AVQ9788: Slow DNS lookup för address 'm@@mmb@Rul0.1308'. 13336 13327 EXPLANATION: 13328 Han attempt to resolve address 'mmdMmanmDumMnB' using the 'getnameinfo' function	
13329 (all took 5 seconds to complete. This might indicate a problem with the DNS 13301 (configuration. 13311 ACTION: 13322 Facure that DNS is correctly configured on the local system.	
13333] 13334 If the address was an IP address then the slow operation was a reverse DNS 13336 lookup. Some DNS configurations are not capable of reverse DNS lookups and some 13336 IP addresses have no valid reverse DNS entries. If the problem persists,	
13337 consider disabling reverse DNS lookups until the issue with the DNS can be 13389 [amgcrhna.c : 785 13389 [amgcrhna.c : 785 13389 [amgcrhna.c : 785	
ISM1 Host (cdmRx000) Installation(Installation1) ISM2 VRMF(8.0.0.4) ISM3 (MV0202: Remote host '102.000/cmcex (1414)' not available, retry later.	
13345 [EXPLANATION: 15346 [The attempt to allocate a conversation using TCP/IP to host '2000000000000000000000000000000000000	
115348 [transitory one and it may be possible to successfully allocate a TCP/IP 15349 [conversation later. 15350]	
15352 ACTION: 15353 Try the connection again later. If the failure persists, record the error 15354 Values and contact your systems administrator. The return code from TCP/IP is	
15555 [1006] (X'2740'). The reason for the failure may be that this host cannot reach 1556 [the destination host. It may also be possible that the listening program at 1557 host 's material cannot be as the the list is the case, perform the 1558 [relaxat concrisions to start the ITCP/ID listening morgam and try again	
15359 angccita.c : 1209	-
Total Rows=15360 Wrap Text=Off Follow File=On	

- Opening of multiple files
- Wrap Text and Recent File List
- Copy, Find, Find Next and Print

5.4 Text Editor

This section will describe how to invoke and use the Text Editor tool. The Text Editor is a simple multipurpose plain-text editor. The Text Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select Tools, then Text Editor.

This is the main panel of the Text Editor and it has 3 open files.

E:\TestData\Text\mqve	e_load_data_0001.txt	
File Edit View Tools H	elp	
message_0001.txt 🗙	mqve_load_data_0001.txt × one_message_small.txt ×	- 🗖
1 Charles John Hu	uffham Dickens, 1812-1870	<u>^</u>
3 Charles Dickens 4 full schedule f 5 energy. In adc 6 journalism and 7 numerous amateu 8 social life. + 9 family and was 10 Victoria and Do 11 charitable orga 12 would walk long 13	Ied a very active life, always setting a for himself which he pursued with extreme iftion to working on his novels, weekly public readings, he produced and appeared in ur theatrical productions and had a busy de had a wide circle of friends, a large admired by such different people as Queen stoevsky. He also was active in several anizations. Ironically, for relaxation, he g distances at a fast pace.	
14 Although he had 15 his novels show 16 that probably s 17 For example, hi 18 Charles was onl 19 situation, his 20 debtor's prisor 21 warehouse.	d a flamboyant and high-spirited personality, v a distinctive blend of comedy and tragedy stems in part from his own life experiences. Is father was imprisoned for indebtedness when ly 12. Because of their impoverished whole family was forced to move into a n and Charles was sent to work in a blacking	E
23 In later years, 24 health. After 25 America, Dicker 26 public readings 27 not fully recov 28 while working o 29 stroke. He was 30 Abbey.	, his busy schedule began to affect his an exhausting tour of public readings in s was left physically weakened. He continued his s on his return to England even though he had vered. The result was that in June 1870, n his novel, Edwin Drood, Dickens suffered a fatal s buried in the Poet's Corner in Westminster	
31 32 1833 33 1833-1835 34 1834 35 1836-1837 36 1837 37 1838-1839 38 1840-1841	Reporter of parliamentary debates Sketches by Boz Morning Chronicle, reporter Pickwick Papers Oliver Twist Nicholas Nickleby The Old Curiosity Shop	
39 1841 40 1842 41 1843 42 1843 43 1843-1844 44 1846 45 1846-1848 46 1849-1850 47 18505 40 1951 1952	Barnaby Rudge American Notes Beginning of the Christmas Book series A Christmas Carol Martin Chuzzlewit Editor of Daily News Dombey and Son David Copperfield Household Words, a magazine	
Row=1 Column=1	Total Rows=60 Wrap Text=Off Insert=On	-

- Open / editing of multiple files
- Builtin XML Viewer, Wrap Text
- Recent File List
- Cut, Copy, Paste, Find and Find Next
- Save, Save As and Print

The following shows the Text Editor's builtin XML Viewer.



5.5 Visual Difference

This section will describe how to invoke and use the Visual Difference tool. The Visual Difference is a simple file to file comparison tool.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select Tools, then Visual Difference.

This is the main panel of the Visual Difference. To initiate the file comparison process, click File and then click Compare File to File



First the user needs to select the first file for the comparison.



Next, the user needs to select the second file for the comparison.

Look in:	🕕 Text		
Recent Items	b temp DInput-N message. message.	loCC.txt txt 	
Desktop	mqve_loa	ad_data_0001.txt ad_data_0001B.txt ad_data_0002.txt ad_data_0003.txt	
My Documents	mqve_loa Mugby Ju one_mes	ad_data_0099.bct unction.bct sage_per_line.bct sage_small.bct	
Computer			
	File <u>n</u> ame:	mqve_load_data_0001B.txt	 <u>O</u> pen
Matural			

The following shows the difference between 2 files. Differences are highlighted: Green for inserts, Red for deletions and Blue for changes.

😰 Visual Difference		
<u>File View Tools H</u> elp		
E:\TestData\Text\mgve_load_data_0001.txt	E:\TestData\Text\mgve load data 0001B.txt	
000: Charles John Huffham Dickens, 1812-1870	000: Charles John Huffham Dickens, 1812-1870	
001:	001:	
002: Charles Dickens led a very active life, always se	002: Charles Dickens led a very active life, always se	
003: full schedule for himself which he pursued with e	003: full schedule for himself which he pursued with e	
004: energy. In addition to working on his nov	004: energy. In addition to working on his novel	
005: journalism and public readings, he produced and a	005: journalism and public readings, he produced and a	
006: numerous amateur theatrical productions and had a	006: numerous amateur theatrical productions and had a	
007: social life. He had a wide circle of frie	007: social life He had a wide circle of fr	
008: family and was admired by such different people a	008: family and was admired by such different people a	
009: Victoria and Dostoevsky. He also was active in s	009: Victoria and Dostoevsky. He also was active in s	
010: charitable organizations. Ironically, for relaxa	010: charitable organizations. Ironically, for relaxa	
011: would walk long distances at a fast pace.	011: would walk long distances at a fast pace.	
012:	012:	
013: Although he had a flamboyant and high-spirited pe	013: This is a test.	
014: his novels show a distinctive blend of comedy and	014:	
015: that probably stems in part from his own life exp	015: Although he had a flamboyant and high-spirited pe	
016: For example, his father was imprisoned for indebt	016: his novels show a distinctive blend of comedy and	
017: Charles was only 12. Because of their impoverish	017: that probably stems in part from his own life exp	
018: situation, his whole family was forced to move in	018: For example, his father was imprisoned for indebt	
019: debtor's prison and Charles was sent to work in a	019: Charles was only 12. Because of their impoverish	
020: warehouse.	020: situation, his whole family was forced to move in	
	021: deptor's prison and Charles was sent to work in a	
022: In later years, his busy schedule began to	022: warenouse.	
023: nealth. After an exhausting tour of public	023:	
024: America, Dickens was fell physically weaker		
025, public readings on his recurn to England e		
027: while working on his novel Edwin Drood D		
028: stroke. He was buried in the Poet's Corne		
029: Abbey.		
030:		
031: 1833 Reporter of parliamentary		
032: 1833-1835 Sketches by Boz		
033: 1834 Mornina Chronicle. reporte		

5.6 XML Editor

This section will describe how to invoke and use the XML Editor tool. The XML Editor is a simple multipurpose plain-text editor. The XML Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select Tools, then XML Editor.

This is the main panel of the XML Editor and it has 3 open files.

χ E:\TestData\XML\book-order2.xml		- • ×		
<u>File Edit View Tools H</u> elp				
book-order2.xml × message_0001.xml × m	essage_0004.xml 🗙			
⊡< <mark>Order</mark>	Attribute	Value		
⊖ ··· <> Customer	xmlns	http://www.example.co		
□····································				
Bill Buckram				
234 234 234 234				
Anifest				
i → → Item				
209				
Title				
Duke: A Biography of the Java Evangeli				
⊖ <> Quantity				
→ → ↓ Item				
208				
⊡<>⊤ite				
100% Pure: Making Cross Platform Depl				
Quantity				
□ <> UnitPrice				
\$10.75				
204				
Making the Transition from C++ to the				
Quantity				
□-<> UnitPrice	-			
4 III >				

- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

6 Miscellaneous

This chapter will describes how the miscellaneous features of MQAUSX-GUI.

6.1 Language

This section will describe how to switch MQAUSX-GUI's Language Text to another Language Text. MQAUSX-GUI has been designed to support Java's multi-language environment. Currently, MQAUSX-GUI has language support (menu items, buttons and titles) for the following 55 languages:



From the main panel of MQAUSX-GUI, select View, then Language.

🖓 MQAUSX-GUI v2.9.1.0	
File View Tools Help	
Reset View African Language Reset View Eastern Language East Asia Langua Middle East Lang Western Language	is is iges iuages Czech (Czech Republic)
	Danish (Denmark) Dutch (Netherlands)
	English (Canada) English (United Kingdom) English (United States) Finnish (Finland) French French German

6.2 Reset View

This section will describe how to reset the view of MQAUSX-GUI if the display is not correct.

MQAUSX-GUI v2.9.1.0	
File View Tools Help	
💦 😴 Languages	
Reset View	

The user can also reset the view from the command line by passing in the *RG* parameter.

6.2.1 Windows Command Line

On Windows, issue the following command to reset the view of MQAUSX-GUI:

mqausxgui.exe RG

6.2.2 Linux and macOS Command Line

On Linux and macOS, issue the following command to reset the view of MQAUSX-GUI:

./mqausxgui.sh RG

7 Appendix A – Frequently Asked Questions (FAQ)

Q. Can IniFiles be create on Windows for MQAUSX on Unix? A. Yes. Once the IniFile has been saved, the user can copy or ftp (in ASCII mode) the file to the remote server.

8 Appendix B – MQAUSX-GUI Upgrade Procedures

To upgrade an existing installation of MQAUSX-GUI, please do the following in the appropriate section below.

8.1 Windows Upgrade

- > Stop all instances of MQAUSX-GUI
- > Backup any MQAUSX-GUI data files in the MQAUSX-GUI install directory
- > Go to the Windows Control Panel and select Program and Features
- Select MQAUSX-GUI and then click the Uninstall button
- > Run the install program called: **mqausxgui-setup-withjre.exe**
- The installer follows the standard Windows install procedures and provides default values for the user.
- When the install program has completed execution, there will be a newly created folder under Start -> All Programs called MQAUSX-GUI.
- > Restore the MQAUSX-GUI data files if necessary
- > To run MQAUSX-GUI, select the MQAUSX-GUI icon from within the MQAUSX-GUI folder.

8.2 Linux or macOS Upgrade

- Stop all instances of MQAUSX-GUI
- Backup any MQAUSX-GUI data files in the MQAUSX-GUI install directory
- Remove the installation i.e. rm -Rf Capitalware/MQAUSX-GUI/
- > Unzip the file, open a shell prompt and execute the following commands:

unzip mqausxgui.zip

> When the unzip command has finished, there should be a directory tree as follows:

Capitalware/MQAUSX-GUI

> Change directory by typing the following:

cd Capitalware/MQAUSX-GUI

Before running MQAUSX-GUI for the first time, you need to add the execute attribute to the mqausxgui.sh shell scripts. Type the following:

chmod +x mqausxgui.sh

To run MQAUSX-GUI from the Capitalware/MQAUSX-GUI directory, then type the following:

./mqausxgui.sh

9 Appendix C – Support

The support for MQAUSX-GUI can be found at the following location:

Online Help Desk Ticketing System at

www.capitalware.com/phpst/

By email at:

support@capitalware.com

By regular mail at:

Capitalware Inc. Attn: MQAUSX-GUI Support Unit 11, 1673 Richmond Street, PMB524 London, Ontario N6G2N3 Canada

10 Appendix D – Summary of Changes

- MQAUSX-GUI v2.9.3
 - Fixed an issue with 'AllowBlankUserId' on the UserId tab
 - Fixed an issue with the Move Up & Move Down buttons on the UserId tab
- MQAUSX-GUI v2.9.2
 - Added the 'Recent Files' menu option under the File menu option.
 - Added images to buttons for more user-friendly display.
 - Added support for 55 languages for the menu options, buttons and titles (not IniFile keywords).
 - Added the 'Reset View' menu option under the View menu option.
 - Added 6 tools under the Tools menu option:
 - Compare File to a File
 - Hex Converter
 - Hex Editor
 - Tail File
 - Text Editor
 - XML Editor
- MQAUSX-GUI v2.9.0
 - Added support single or double quote on log message (new keyword: LogMessageQuote)
- MQAUSX-GUI v2.7.0
 - Added support log disconnect message (new keyword: LogDiscMessage)
 - Added support single or double quotes for log message (new keyword: LogMessageQuote)
 - Added support when the auxiliary memory is to be freed immediately vs on termination (new keyword: FreeAuxOnTerm)
- MQAUSX-GUI v2.6.1
 - Added new keywords: UseCredentialCache, CacheLife & CacheSize
- MQAUSX-GUI v2.6.0
 - Added support for Queue Manager Password Authentication (new keywords: UseQMgrPwd & QMgrPwd)
 - Added support for Pluggable Authentication Modules (PAM) for Unix and Linux (new keywords: UsePAM & PAMService)
 - Ability to monitor for excessive client connections (ECC) and then generate an alert (new keywords: UseECC, ECCWarnCount & ECCInterval)

MQAUSX-GUI v2.5.2

- Added new CheckFinalUserID keyword. It will take the final UserID and reprocess it against UseAllowUserID, AllowUserID, UseRejectUserID, RejectUserID and Allowmqm keywords.
- MQAUSX-GUI v2.5.1
 - Added UseMCCRedo flag to control MCCRedoCount, MCCRedoMinutes and MCCGetTimeOut
 - Added UserIDFormatting flag to force lowercase/uppercase/as_is UserID formatting on all platforms
 - o Renamed AllowMQCSPAuth flag to AllowPlainTextCredentials
- MQAUSX-GUI v2.5.0
 - Major layout of change
 - Added new keywords: SystemLogMessage, UseGroups, Groups, UseGroupFile, GroupFile, UseAllowHostByName, AllowHostByName, UseRejectHostByName, RejectHostByName, UseLDAPAuthCompare, UseLDAPUserIDSearch, LDAPUserIDSearchBase, LDAPUserIDSearchFilter, LDAPUserIDSearchScope and UseLDAPGroupSearchBindDN
 - Changed keywords UseLDAPSearch, LDAPSearchBase, LDAPSearchFilter, LDAPSearchScope to UseLDAPGroupSearch, LDAPGroupSearchBase, LDAPGroupSearchFilter, LDAPGroupSearchScope
- MQAUSX-GUI v2.2.5
 - Updated the layout of tabs
 - Added new keywords: UseQAS, UseCDC and UseLDAPSearchBindDN
 - Added new keywords: UseAllowHostname, AllowHostname, UseRejectHostname and RejectHostname
- MQAUSX-GUI v2.2
 - Updated the layout of tabs
 - Added new keywords: LicenseFile, UseLDAPBindDN, LDAPBindDN, LDAPBindPwd, SSLCertPwd, UseSSLCertUserID, AllowSSLSSCert, UseSSLUserIDFromDN, SSLDNAttrName, SSLDNAttrStartPos, SSLDNAttrLength, UseAllowSSLDN, AllowSSLDN, UseRejectSSLDN and RejectSSLDN
- MQAUSX-GUI v2.1
 - Added new keywords: UseLDAPSearch, LDAPSearchBase, LDAPSearchFilter, LDAPSearchScope and AllowUserAlterServerName
- MQAUSX-GUI v2.0
 - Updated the layout of tabs
 - Added new keywords: BackupLogFileCount, UseLDAPLoadBalance, UseRejectIP, RejectIP, UseRejectUserID, RejectUserID, UseRejectADName, RejectADName and MCCGetTimeOut
- > MQAUSX-GUI v1.2.5

- Added new keywords: RotateLogDaily, WriteToEventQueue, EventQueueName, UseAllowADName, AllowADName, UseAllowUserID, AllowUserID and MCCEventWarnLevel
- MQAUSX-GUI v1.2
 - Updated default values for keywords.
- ► MQAUSX-GUI v1.1
 - Updated keyword display.
- ► MQAUSX-GUI v1.0
 - Initial release.

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